ABSTRACT

A method for improving mixed raster compression segmentation utilizes a second stage of a process to generate the MRC Selector plane by operating on a multibit selector (GraySel) signal which is produced by a first stage process. The first stage methods used to generated the GraySel can be PDL or scan oriented. The binary Selector signal produced by the second stage minimizes the compression noise evident in the reconstructed image. This second stage processing relies on knowing the size of the JPEG minimum coded unit (MCU) which will be used to compress the segmented Foreground and Background planes. The idea is to move false (soft) edges away from the real (hard) edges by as large a distance as possible up to the point where they fall off the boundary of the MCU block. Thus a soft edge which occurs between two hard edges is either eliminated or repositioned to the midpoint and a soft edge between a hard edge and the MCU boundary is moved to the boundary. Since JPEG MCU blocks are compressed independently, transitions at the boundary cause no 'ringing' in the decompressed output.